

EXPLANATION OF PLATE V.

[The figures represent the specimens magnified 4 diameters, with the exception of 16 *b*.]

- Fig. 1 *a*. *Beyrichia Buchiana*, Jones: right valve. 1 *b*. Ventral aspect of the same valve. 2. Left valve. 3. Left valve of old specimen.
- Fig. 4. *Beyrichia tuberculata*, Klöden, sp.: right valve (young individual). 5 *a*. Right valve. 5 *b*. Ventral aspect of the same valve. 6. Left valve. 7 *a*. Left valve (old individual). 7 *b*. Ventral aspect of the same valve. 8 *a*. Right valve. 8 *b*. Transverse section of the right valve. 9 *a*. Left valve. 9 *b*. Ventral aspect of the same valve.
- Fig. 10 *a*. *B. tuberculata*, var. *nuda*, Jones: right valve. 10 *b*. Ventral aspect of the same valve. 11. Left valve.
- Fig. 12. *B. tuberculata*, var. *antiquata*, Jones: left valve.
- Fig. 13 *a*. *Beyrichia Dalmaniana*, Jones: right valve. 13 *b*. Ventral aspect of the same valve.
- Fig. 14. *Beyrichia Maccoyiana*, Jones: right valve.
- Fig. 15 *a*. *Beyrichia Salteriana*, Jones: right valve. 15 *b*. Ventral aspect of the same valve. 16 *a*. Left valve. 16 *b*. Highly magnified view of part of the border.
- Fig. 17. *Beyrichia Wilckensiana*, Jones: Left valve. 18 *a*. Right valve. 18 *b*. Ventral aspect of the same valve.
- Fig. 19. *B. Wilckensiana*, var. *plicata*, Jones: right valve of large individual. 20 *a*. Right valve. 20 *b*. Ventral aspect of the same valve. 21. Left valve.
- Fig. 22. *Beyrichia siliqua*, Jones: right valve.
- Fig. 23. *Beyrichia mundula*, Jones: left valve.

VII.—On the Conjugation of the Diatomaceæ.

By J. W. GRIFFITH, M.D., F.L.S.

[With a Plate.]

THE interest attached to the conjugation and the relation of the forms to the species of Diatomaceæ, will, I trust, render the following remarks of interest to the botanist.

At the end of May of the present year, I was fortunate enough to find the bodies delineated in Pl. II. B. figs. 1–5, in a ditch near Blackwall.

The first which attracted my notice was that represented by fig. 3, and which could not be referred to any known Diatomacean; it was composed of silex, *i. e.* indestructible by heat and nitric acid. Upon further search, other of these bodies were found (fig. 2) containing a frustule of a *Navicula*, some also with the valves of another *Navicula* (figs. 1 & 2) adherent to the former. It was then evident that these bodies represented



Paleozoic Entomostraca.
Beyrichia.

